**DOCKET NO. 03-0371**

**PUBLIC UTILITIES COMMISSION**

**CONSUMER ADVOCATE'S RESPONSES TO THE COUNTY OF MAUI'S INFORMATION REQUESTS ON THE CONSUMER ADVOCATE'S WRITTEN DIRECT TESTIMONY**

The responses to the following information requests were prepared by Mr. Herz, who is the sponsor of the responses.

COM-CA-DT-IR-54 CA-T-1, page 30, line 10: Provide all analyses prepared by or for the Consumer Advocate or by or for Sawvel identifying the capacity value of as-available generation for utilities.

RESPONSE: No analysis has been prepared for purposes of identifying the capacity value of as-available generation for this DG proceeding. The referenced testimony addressed why as-available generating resources are not considered firm capacity by Hawaii's utilities in their generation planning criteria and are not considered for determining reserve margins. The issue of identifying whether any as-available generation has capacity value should be addressed in the context of the IRP process. See also response to HREA-CA-T-1-IR-5.

COM-CA-DT-IR-55 CA-T-1, page 30, line 10: Provide any studies measuring the loss of load probability impacts of as-available generation such as wind power that Mr. Herz has received and reviewed.

RESPONSE: Mr. Herz has not received or reviewed any studies measuring the loss of load probability impacts of as-available generation such as wind power for purposes of this DG proceeding. See also the response to COM-CA-DT-IR-54.

COM-CA-DT-IR-56 CA-T-1, page 30, line 10: Provide any analyses prepared by or for the Consumer Advocate of the actual performance of as-available energy resources during periods of capacity shortfalls on Hawaii utility systems.

RESPONSE: No analysis of the actual performance of as-available energy resources during periods of capacity shortfalls on Hawaii utility systems has been made for this DG proceeding. See response to COM-CA-DT-IR-54.

COM-CA-DT-IR-57 CA-T-1, page 30, Line 10: Provide any analysis prepared by Mr. Herz of the testimony relating to as-available energy resources submitted by the Consumer Advocate in Docket No. 7310.

RESPONSE: Mr. Herz was not a witness representing the Consumer Advocate in Docket No. 7310. For purposes of this proceeding Mr. Herz did not do, receive or review any analysis of the testimony relating to as-available energy resources submitted by the Consumer Advocate in Docket No. 7310. See also the response to COM-CA-DT-IR-54. Furthermore, the testimony submitted in that proceeding was based on information that is more than 10 years old and one would need to assess whether events have occurred since that time to change any of the analysis and conclusions reached.

COM-CA-DT-IR-58 CA-T-1, page 45, Line 5: Under an unbundled rate structure, how would interclass deviations from cost of service results be addressed? Would a non-bypassable system benefit charge be appropriate to be applied to all customers, including DG standby customers, to recover the cost of service deviations?

RESPONSE: For inter-class deviations from cost of service, see the responses to HECO/CA-DT-IR-3 and HECO/CA-DT-IR-4. A "non-bypassable system benefit charge" may be an appropriate method of unbundling the rate structure. Such an unbundled charge would need to be defined and addressed in the utility's next rate case filing along with other forms of rate unbundling. Regardless of the name and form of rate unbundling, the deployment of DG requires the utility's bundled rate structure to be unbundled so that customers with DG can pay for the applicable services provided by the utility.

COM-CA-DT-IR-59 CA-T-1, page 45, line 10: Provide two examples of utility tariffs that are unbundled in the form recommended by Mr. Herz.

RESPONSE: All of the mainland utilities under the FERC's jurisdiction were required under Order 888[1] to unbundle the generation costs described in the reference testimony for voltage support, load following and reserves and to include the rates for such unbundled ancillary services in the transmission rate. Utility rates can generally be located at their web site.

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1 Promoting Wholesale Competition Through Open Access Non-discrimination Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 61 Fed. Reg. 21,540 (1966), FERC Stats. & Regs. ¶ 31,036 (1997); order on reh'g, Order No. 888-A, 62 Fed. Reg. 12,274 (1997), FERC Stats. & Regs. ¶ 31,048 (1997); order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997); order on reh'g, Order No 888-C, 82 FERC ¶ 61,046 (1998).

COM-CA-DT-IR-60 CA-T-1, page 45, line 10: Assume hypothetically that a utility has unbundled tariffs as proposed by Mr. Herz, structured so that the sum of unbundled billing determinants multipled by unbundled rates equals the current bundled revenue requirement. Assume further that under such a structure, a DG customer chooses to acquire energy and capacity, but not ancillary services, from another source, and continued to purchase ancillary services from the utility. How would Mr. Herz propose that the utility's [sic] loss of revenue from providing generation capacity be treated for ratemaking purposes in a subsequent rate proceeding?

RESPONSE: The question assumes that the utility is unable to replace the load lost to customer-sited DG from new or existing customer load growth. The generation capacity should be treated the same as the generation capacity from any other loss of load in the subsequent rate proceeding.

COM-CA-DT-IR-61 CA-T-1, page 57, Line 6: You state that DG affects the distribution system of the utility. Assume hypothetically that a DG system operates reliably 90% of the time, and that the utility has designed its distribution system to provide reliable service to all loads, including the standby service to the DG customer during the 10% of the time that the DG system requires standby power. Do you agree that during the other 90% of the time, the utility has excess distribution capacity that provides for lower losses and greater reliability than would be the case is [sic] the DG customer took power continuously from the grid? Assume further under this example that the 10% of the time the DG system is unavailable does NOT coincide with the distribution system peak demand. Would you agree under these circumstances that the utility would have significantly more reliable distribution service to non-DG customers than if the DG system did not exist?

RESPONSE: For the situation described, any loss of load, including load served by DG could reduce losses. Reliability may or may not be improved based on the specific circumstances. For example, DG with wide fluctuations in output could adversely affect voltages and reliability to other customers. DG that reliably serves customer load could improve service reliability to other customers. Without knowing more information regarding the specific circumstances under which the hypothetical questions are posed, it is difficult to provide an informed response at this time. The analysis required to prepare an informed response must consider the specific facts and circumstances of the situation, such as the size of the customer's load in relation to the total load of the utility, the size of the DG facility in relation to the total available generation, the

location of the customer in relation to the T&D system constraints, if any, etc.

COM-CA-DT-IR-62 CA-T-1, page 59: Provide an actual example of a utility which has unbundled rates in the form you recommend, including the effective tariffs of the utility.

RESPONSE: All of the mainland utilities under the FERC's jurisdiction were required under Order 888[2] to unbundle rates in the form (generally referred to as "point-to-point" and "network" rates) described in the testimony. These rates are generally available on the utility's web sites.

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2 Promoting Wholesale Competition Through Open Access Non-discrimination Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Order No. 888, 61 Fed. Reg. 21,540 (1966), FERC Stats. & Regs. ¶ 31,036 (1997); order on reh'g, Order No. 888-A, 62 Fed. Reg. 12,274 (1997), FERC Stats. & Regs. ¶ 31,048 (1997); order on reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997); order on reh'g, Order No 888-C, 82 FERC ¶ 61,046 (1998).

COM-CA-DT-IR-63 CA-T-1, page 62, line 1: It appears that your recommended rate design would provide for fixed capacity charges recovering all fixed capacity-related costs, ignoring diversity that exists between customers with lower load factors. Provide detailed worksheets showing how the formula for unbundling you suggest would affect distribution customers with load factors of 20%, 40%, 60%, and 80% compared with current rate designs for Schedule J and Schedule P.

RESPONSE: The testimony does not recommend a rate design that provides for fixed capacity charges recovering all fixed capacity-related costs. The testimony does recommend, however, that an unbundled rate design structure be implemented so that non-DG customers do not subsidize the transmission, distribution and backup generation services provided by the utilities for the customer load served by DG. No worksheets have been prepared showing the formula for unbundling and the affect on distribution customers with load factors of 20%, 40%, 60% and 80% compared with current rate designs for Schedule J and Schedule P. Any such analysis would be speculative at this time without knowing the specific information pertaining to each utility's costs and customer information. The point offered is that diversity and other factors should be considered in the development of unbundling the rates in the utility's rate case filing so that customers with DG pay for the cost of the services provided by the utility.

COM-CA-DT-IR-64 CA-T-1, page 69, line 5: If there is no restriction on who owns DG facilities, should all DG facilities be subject to the same standby rates, including DG systems owned by the electric utility?

RESPONSE: Yes, provided that by "same" the question is not implying that the standby rate is one applied to all electric utilities in the State, but is a rate that is developed based on the specific facts associated with each utility's costs. Similarly situated DG facilities, including customer-sited DG for each utility, should be subject to non-discriminating rates, terms and conditions for that utility regardless of ownership.

COM-CA-DT-IR-65 CA-T-1, page 69, line 5: Does the Consumer Advocate favor allowing electric utilities to own DG facilities and charge for these facilities on a value-of-service basis, rather than a cost-of-service basis?

RESPONSE: No. If the DG facilities are owned by the utility, and the utility includes the DG facilities in its rate base as a part of its regulated utility business, then the charge should be on a cost of service basis and not a value of service basis.

COM-CA-DT-IR-66 CA-T-1, page 69, line 5: If utilities own DG facilities, should the rates they charge for these facilities be based upon the costs of the facilities, including traditional rate base treatment of the investment, application of the utility's [sic] cost of capital, and straight-line depreciation to the facilities?

RESPONSE: Yes, provided that the DG facilities are installed in accordance with the lowest reasonable cost plan developed through an IRP process including competitive bidding. See also the response to HECO/CA-DT-IR-2.

COM-CA-DT-IR-67 CA-T-1, page 69, line 5: If non-utility owners can finance DG systems with lower overall costs of capital (any combination of lower costs of debt and/or equity, or greater leverage) than utilities can do, and utilities are allowed to charge for DG systems on some basis other than cost of service (e.g., a value-of-service basis that does not recover the fully allocated costs of DG systems), should other customers be held liable for the under recovery of DG system costs?

RESPONSE: No, because it is anticipated the DG facilities installed by the utility and included in rate base will be at the utility's fully allocated cost of DG systems (See response to COM-CA-DT-IR-66) and not on a value-of-service basis. It is also anticipated that DG systems will be installed pursuant to the utility's lowest reasonable cost plan developed from the IRP process and selected through a competitive bidding process.

COM-CA-DT-IR-68 CA-T-1, page 69, line 5: Should the unbundled costs provide for the same standby charges to DG customers regardless of whether the DG facilities are owned by the utility or by the customer or a third-party?

RESPONSE: Comparable rates should be charged to DG customers that are non-discriminatory nor anti-competitive so as to not favor the utility or any other party over the other.

COM-CA-DT-IR-69 CA-T-1, page 70, line 10: Provide examples of the type of performance incentives/disincentives that would make the non-utility DG owner's [sic] system as reliable, for planing purposes, as a utility owner.

RESPONSE: Examples of performance incentives/disincentives are in the PPA agreements the Hawaii utilities have filed with the Commission. As noted in the referenced testimony, however, "[e]ven with such contractual incentives, the electric utility will be the only entity with the regulatory obligation (i.e., "on the hook" with the Commission) to provide reliable capacity and energy to its customers." (See CA-T-1, page 70, lines 13-6.)

COM-CA-DT-IR-70 CA-T-1, page 74, line 15: Define "benefit" as the term is used in the context of benefitting only a select group of customers or all customers.

RESPONSE: An example of a questionable "benefit" would be customers with the utility-owned DG systems receiving a discount that the utility does not provide to customers with non-utility owned DG systems.

COM-CA-DT-IR-71 CA-T-1, page 74, line 15: Provide information as to when HECO should be allowed to rate base the costs of its proposed CHP program without some offset in the form of contributions in aid of construction or other compensation?

RESPONSE: See response to HECO/CA-DT-IR-2.

COM-CA-DT-IR-72 CA-T-1, page 75, line 1: Does this mean that DG customers buying DG-generated electricity from the utility should pay the same rates as all other customers on the same rate schedule and having the same load characteristics?

RESPONSE: Yes. See also the response to COM-CA-DT-IR-68.

COM-CA-DT-IR-73 CA-T-1, page 77, line 1: Would the standby rates be the same for the customer-owned DG system and the utility-owned DG system?

RESPONSE: Yes. Regardless of ownership, the unbundled rates (whether referred to as standby rates or some other defined term) should be applied in a manner that is neither discriminatory nor anti-competitive.

COM-CA-DT-IR-74 CA-T-1, page 78, line 18: Should the utility require multi-year contracts for large customers who have alternatives that might allow them to disconnect from the system altogether, in order to mitigate the risk of stranded investment?

RESPONSE: This hypothetical question can not be answered either affirmatively or negatively without considering additional specific information regarding each circumstance. Generally, contractual commitments to mitigate the risk of stranded investment should be dealt with prior to service hookup for large customers, or before a large increase in a customer's load service requirement occurs. The contractual commitments at that time would address funding of the utility's resources for the customer, minimum payment obligations and contract term to mitigate the risk of stranded investment. Seeking such contractual arrangements with existing customers, however, may be difficult to negotiate and the terms of the agreement would have to be non-discriminatory to all customers.